Northern Tier Transmission Group

Regional Planning Practice

The Northern Tier Transmission Group (“NTTG”) was formed in 2007 as an outgrowth of earlier regional[[1]](#footnote-1) transmission coordination efforts as an extension of the transmission planning and stakeholder participation processes of transmission providers in the NTTG footprint (or combined transmission provider’s service territories). Starting in 2004, NTTG’s planning effort was molded to meet the requirements of Federal Energy Regulatory Commission (“FERC”) Order 890 that was issued in 2007. NTTG’s transmission providers complied[[2]](#footnote-2) with the Commission’s requirement by amending their FERC Tariff to include an Attachment K that met the Order 890 nine planning principles at the local and regional levels. In 2011, FERC issued Order 1000 amending their Order 890 regional planning requirements requiring each transmission provider participate in a regional transmission planning process that produces a Regional Transmission Plan by complying with Order No. 890 transmission planning principles[[3]](#footnote-3). The Commission determined that such regional transmission planning will expand opportunities for more efficient and cost-effective regional transmission solutions for public utility transmission providers and stakeholders.

The framework of NTTG’s regional planning process is defined in the Northern Tier Transmission Group’s Planning Committee Charter. The charter establishes the Planning Committee with responsibility *“~~for coordinating~~[delete and change charter to say] to develop a Regional Transmission Plan within the NTTG footprint, coordination with other regional planning groups and the WECC planning committees.”*

As part of the regional planning process established by the Planning Committee Charter, this planning practice document, developed and reviewed with stakeholders, provides a framework for an open and transparent regional planning process that meets the Commission requirements of Order 1000.

Contents

[REGIONAL PLANNING PROCESS 3](#_Toc320179185)

[Objective of NTTG’s Regional Transmission Planning Process 3](#_Toc320179186)

[Introduction 3](#_Toc320179187)

[Northern Tier Transmission Group 3](#_Toc320179188)

[Biennial Planning Process 4](#_Toc320179189)

[Information Gathering from Transmission Providers and Stakeholders 5](#_Toc320179190)

[Project Information Required from all Projects – Submitted During Quarter One 7](#_Toc320179191)

[Information Required for Projects Submitted for Consideration in the Regional Plan for Cost Allocation 7](#_Toc320179192)

[Sponsor Qualification Data – Submitted Prior to Biennial Cycle Begins 7](#_Toc320179193)

[Additional Cost Allocation Data – Submitted During Quarter One 8](#_Toc320179194)

[Timeline for Submission 10](#_Toc320179195)

[Regional Public Policy Need Information & Data Submission 10](#_Toc320179196)

[Selecting the Public Policy Needs to be used in the Regional Transmission Plan 11](#_Toc320179197)

[Posting Requirement 12](#_Toc320179198)

[Public Policy Needs Evaluation in the Regional Plan 12](#_Toc320179199)

[Regional Transmission Plan Evaluation Process 12](#_Toc320179200)

[Study Plan 13](#_Toc320179201)

[Goal of the Study 14](#_Toc320179202)

[Regional Planning Process Deliverables 14](#_Toc320179203)

[Criteria for Selecting a Project into the Regional Transmission Plan 14](#_Toc320179204)

[More Efficient or Cost-Effective 14](#_Toc320179205)

[More Cost Effective 15](#_Toc320179206)

[Reevaluation Due to Delay of Development when Selected in the Regional Plan for Cost Allocation 15](#_Toc320179207)

[Methodology 16](#_Toc320179208)

[Assumptions 16](#_Toc320179209)

[Time Frame 16](#_Toc320179210)

[Study Technique 16](#_Toc320179211)

[System Conditions to Study 17](#_Toc320179212)

[Bases Cases Selected 17](#_Toc320179213)

[Contingencies to Run 17](#_Toc320179214)

[Reliability Criteria 17](#_Toc320179215)

[INTERREGIONAL PLANNING PROCESS 17](#_Toc320179216)

# REGIONAL PLANNING PROCESS

# Objective of NTTG’s Regional Transmission Planning Process

The objective of NTTG’s transmission study effort is use a bottom up approach to develop an initial regional transmission plan from a roll up of the transmission providers’ local transmission plans and to improve upon that plan, if possible, to develop a Regional Transmission Plan that meets the regional transmission needs more efficiently and cost effectively than the roll up of the transmission providers’ local transmission plans.

# Introduction

## Northern Tier Transmission Group

NTTG is a group of transmission providers and customers that are actively involved in the sale and purchase of transmission capacity of the power grid that delivers electricity to customers in the Pacific Northwest and Mountain States. Transmission owners/providers serving this territory work in conjunction with state governments, customers, and other stakeholders to improve NTTG’s regional planning process to evaluate from a regional perspective the future transmission providers’ transmission systems that link all of NTTG’s service territories as shown in . NTTG’s regional planning process cannot be done in isolation, but must be coordinated with adjacent regional planning regions within the western interconnection and with the Western Electric Coordinating Council’s interconnection-wide responsibilities.

NTTG coordinates individual transmission systems regional planning and cost allocation efforts of the high-voltage transmission network to meet and improve regional transmission services that deliver power to consumers. NTTG participating utilities[[4]](#footnote-4) are committed to working with stakeholders, state officials and other regional planning organizations to plan for the regional infrastructure needed to deliver new sources of energy (e.g., renewable, thermal power, etc.) resources to customers. NTTG is a proactive group devoted to a collaborative, step-by-step, approach to achieve efficient and cost-effective Regional Transmission Plan.

  Figure

## Biennial Planning Process

The NTTG transmission planning process utilizes its eight quarter biennial planning cycle to develop an efficient and cost-effective Regional Transmission Plan. The regional planning process goal is to analyze from a regional perspective the roll up of the NTTG transmission providers local plans, merchant developer projects, non transmission projects, regional transmission solutions for public policy needs and un-sponsored projects from the regional planning process to define, if possible, a single Regional Transmission Plan that is more efficient and cost effective than the NTTG transmission providers’ collective local transmission plans. While the resulting Regional Transmission Plan is not a construction plan, it will provide valuable regional insight and information for all stakeholders to consider and potentially modify their respective plans.

NTTG existing eight quarter planning process is shown in Figure 2.

Figure

Below is a high level summary of the eight quarter planning process shown in Figure 2.

Quarter 1: Gather local transmission providers’ plans, that include public policy need information & data; gather information for public policy needs and transmission and non-transmission alternatives from transmission providers, merchant project developers and stakeholders; gather prior NTTG biennial plan results and results from prior eligible customer and stakeholder economic congestion studies; and receive new economic congestion study requests from eligible customers and stakeholders[[5]](#footnote-5).

Quarter 2: Develop the biennial study plan with stakeholder input and perform approved economic congestion studies. Receive approval of the study plan from NTTG Steering Committee.

Quarter 3: Report economic congestion study results from requests received during quarter 1.

Quarters 3-4: Analyze regional transmission alternatives and develop a draft regional transmission plan following the modeling techniques defined in the study plan; and provide draft cost allocation data to the Cost Allocation Committee resulting from the draft regional transmission plan.

Quarter 5: Facilitate stakeholder review and comment on the draft regional transmission plan; receive updates to the quarter 1 information about new or changed circumstances or data and prior eligible customer and stakeholder economic congestion study results; and receive new economic congestion study requests from eligible customers and stakeholders.

Quarter 6: Finalize the Regional Transmission Plan analysis with quarter 5 updates and perform approved economic congestion studies. Develop draft Regional Transmission Plan report.

Quarter 7: Facilitate stakeholder review and comment on the draft Regional Transmission Plan report and report economic congestion study results from requests received during quarter 5.

Quarter 8: Obtain approval from the NTTG Steering Committee of the Regional Transmission Plan.

NTTG planning practice is demonstrated through the activities embodied in the eight quarter planning process of the biennial planning cycle. Certain elements of each quarter’s activities are further described below. See the “Regional Transmission Plan Evaluation Process” section for additional detail.

# Information Gathering from Transmission Providers and Stakeholders

NTTG uses the bottom up approach to receive information from NTTG transmission providers’ local transmission plans during quarter one. This information includes load and resource information that incorporates the transmission service forecast and public policy needs and associated transmission data for its transmission system. Also, other regional transmission and non-transmission projects for consideration in the biennial plan, including public policy needs, will also be received from merchant developers and stakeholders during quarter one with updates in quarter five. Projects may be submitted into the planning process to meet reliability or load service requirements, address economic considerations, and/or to meet transmission needs driven by public policy needs. The types of projects are listed below.

1. projects with potential regional impact rolled up from one or more local transmission providers’ transmission plan(s)
2. merchant developer projects
3. new “unsponsored” regional project identified through the regional planning process
4. interregional projects
5. non-transmission alternative projects
6. transmission projects to satisfy existing or future public policy needs required by state or federal law or requirements

As noted by (c), one result of the regional planning process may be identification of an unsponsored transmission project. With the exception of project types (c) and (e) above, all of the projects listed above may be submitted by an entity requesting that the project be evaluated for cost allocation (such request must be submitted upon the initial project submission date during quarter one). See the “Sponsor Qualification Data – Submitted Prior to Biennial Cycle Begins” section below for additional information regarding the required data to be submitted. Figure 3 below provides a diagram of the data submittal process for all projects submitted to NTTG for consideration in the regional plan.

 Figure

## Project Information Required from all Projects – Submitted During Quarter One

As shown in Figure 3, there is a requirement during quarter one of the biennial planning cycle that all project sponsors submit “project information” for their project regardless of the sponsors desire to be considered in the regional plan for regional cost allocation. This project information must be provided by all project sponsors whether or not their project is a project proposed for selection in the regional plan for purposes of cost allocation. The project information provides basic information for modeling the project in NTTG’s power system planning models. All stakeholders must submit their data to the local transmission provider or to NTTG copying the local transmission provider using the data request form during the quarter one data request window. Updates to quarter one data are allowed during quarter five data request window. The data request form can be found on the NTTG website as specified in the transmission provider’s link document as URL http://nttg.biz/site/index.php?option=com\_docman&task=cat\_view&gid=350&Itemid=31.

## Information Required for Projects Submitted for Consideration in the Regional Plan for Cost Allocation

As shown in Figure 3, both public utility transmission providers and non-incumbent transmission developers must submit three pieces of information (sponsor qualification data, additional cost allocation data and project information data) if they desire that their project be considered in NTTG’s regional planning process for possible selection in the regional plan for purposes of cost allocation. The project information was described in the preceding section. The following sections discuss the sponsor qualification data, NTTG’s evaluation criteria that will be applied to the qualification data, and the additional cost allocation data. All requested data must be submitted in sufficient detail for NTTG (with stakeholder input) to determine a sponsor’s eligibility to propose a project for selection in the Regional Transmission Plan for purposes of cost allocation.

### Sponsor Qualification Data – Submitted Prior to Biennial Cycle Begins

An entity that plans to submit their regional transmission project into NTTG’s regional planning process for regional cost allocation must first submit qualification data prior to the start of the biennial planning cycle (see Figure 4 for the timeline). The sponsor qualification data will be used to determine the entities eligibility to submit a project for selection in the plan for regional cost allocation. This is process is shown in Figure 3. The information in Table 1 must be submitted by project sponsors.

| Sponsor Qualification Data – Submit Prior to Biennial Cycle BeginsProject Submitted for Selection in Regional Plan for Regional Cost Allocation |
| --- |
|  | Category | Qualification Data |
| 1 | Project sponsor description | 1. Name and address2. Years in business 3. Operating environment (what is the nature of your business?) |
| 2 | Project sponsor demonstration of technical expertise to develop, construct, own the proposed facility | 1. Management’s experience in the industry2. Scope of sponsor’s technical expertise (in house expertise and/or out sourced expertise) 3. Name and location of a project of similar scale that demonstrates the sponsor’s technical expertise |
| 3 | Project sponsor financial expertise to develop, construct, own the proposed facility | 1. Balance sheet or annual report (if appropriate)2. Credit worthiness a. Rating agency reports (if applicable) b. Two most recent audited year-end financial statements plus any available quarterly financial statements for current fiscal year (if applicable)c. Material issues that could impact the credit decision including but not limited to litigation, arbitration, contingencies, or investigations (if applicable)3. Other information supporting sponsor’s financial expertise |
| 4 | Project Sponsor ability to maintain and operate their proposed facility | 1. Prior operation experience2. Prior maintenance experience |
| 5 | Project summary  | 1. Summarize the proposed project |
| 6 | Investors  | 1. Description2. Interest |
| 7 | Demonstration of ability and commitment to register and comply with all NERC standards | 1. An attestation form |
| 8 | Other relevant or pertinent data or information | 1. As appropriate |

Table

### Additional Cost Allocation Data – Submitted During Quarter One

After the entity meets the eligibility criteria, they must also submit during quarter one the additional cost allocation data described below. If the entity does not meet the eligibility criteria, the project sponsor may choose to correct the eligibility deficiency and re-apply for eligibility, or submit its project into the planning process but not for cost allocation or withdraw the project from further consideration. The following additional cost allocation data must be submitted by an entity submitting a project for consideration in NTTG’s regional plan for selection in the regional plan for cost allocation includes the data shown in Table 2.

| Additional Cost Allocation Data - Submit During Quarter 1Project Submitted for Possible Selection in Regional Transmission Plan for Cost Allocation |
| --- |
| 1. | Project sponsor name and project description (should be the same as provide on sponsor qualification data, if different provide update) |
| 2. | Physical location  |
| 3. | Detailed Cost Estimate |
| 4. | Cost/benefit analysis  |
| 5. | POR/POD  |
| 6. | Pertinent engineering and/or transmission studies or other reports  |
| 7. | A copy of any WECC or other regional, interregional or interconnection–wide planning entity economic and reliability determinations relative to the project  |
| 8. | Status of any siting process  |
| 9. | Proposed cost allocation (The sponsor should state how they would see the cost being allocated and after the modeling show a comparison of the two (ours/theirs)).  |
| 10. | Proposed Beneficiaries: (tells Cost Allocation committee what the sponsor thinks the cost recovery looks like).  |
| 11. | Proposed cost recovery, if any other than NTTG regional cost allocation. |
| 12. | A risk and benefit analysis focusing on the distribution of costs, benefits and risks among the parties proposed to share in the cost allocation of the project. |
| 13. | Proposal on dealing with cost overruns  |
| 14. | Discuss degree of consensus among stakeholders on all of the above  |
| 15. | How each NTTG cost allocation and Order 1000 principles are applied in the analysis  |
| 16. | A description of any regulatory rulings needed prior to examination of the project  |
| 17. | Any NTTG Planning Committee analysis pertinent to the project and a description of how it fits into the NTTG Annual or Biennial Plan  |
| 18. | Description of any proprietary or commercially sensitive information applicants believe should remain confidential during the review process |
| 19. | Other relevant or pertinent data and information. |

Table 2

### Timeline for Submission

Figure 4 provides the timeline for collection the information for projects that desire to be considered for selection in the regional plan for cost allocation.

Figure

## Regional Public Policy Need Information & Data Submission

NTTG Regional Transmission Plan will include only public policy needs that are driven by state or federal law or regulations. However, NTTG may consider scenario analysis for other public policy considerations as agreed to during the development of the biennial study plan and approved by NTTG Steering Committee.

NTTG will gather public policy need data from the transmission providers using a bottom up approach through their transmission plan information and data during quarter one. Stakeholders may also submit public policy needs and any associated transmission that are required by existing or potential future state or federal laws using NTTG quarter one data submittal process with NTTG’s data request form as specified in the transmission provider’s link document as URL http://nttg.biz/site/index.php?option=com\_docman&task=cat\_view&gid=350&Itemid=31. [NOTE: MUST ADJUST THE DATA SUBMITTAL FOR TO INCLUDE ONE ADDITIONAL TAB FOR PUBLIC POLICY REQUIREMENTS. THE ASSOCIATED TRANSMISSION CAN BE SUBMITTED USING THE TRANSMISSION TAB.] NTTG’s regional data submittal process allows any stakeholder to submit directly to the transmission provider or NTTG with copy to the transmission provider any data, including regional public policy needs data and associated transmission solutions.

### Selecting the Public Policy Needs to be used in the Regional Transmission Plan

NTTG process receives public policy need information and data from the local transmission plans and stakeholders during the quarter one data submittal period that creates a public policy needs data pool. From this public policy needs data pool, the public policy needs for the ensuing biennial plan will be determined during the quarter two study plan development. The resulting regional public policy needs will be approved by the NTTG Steering Committee as part of the study plan approval at the end of quarter two. Once approved, the regional public policy needs will not be revised during the study process that ultimately develops the NTTG Regional Transmission Plan unless unforeseen circumstances require a modification to the approved public policy needs. In this instance, stakeholders will be consulted before the approved public policy needs are modified and then approved by NTTG’s Steering Committee.

NTTG will apply the following process to public policy data.

Quarter 1: Regional public policy needs information and data will be rolled up from the local transmission providers’ transmission plans and received from stakeholders using NTTG’s data submittal forms.

Quarter 2: After consultation with stakeholders, including participation of state regulators, NTTG’s Planning Committee will recommend to NTTG’s Steering Committee the regional public policy needs to be used in the regional plan analysis that ultimately defines NTTG’s Regional Transmission Plan. The study plan may also include other public policy needs for scenario analysis, but the scenario study results will be informational only and not become part of NTTG’s Regional Transmission Plan.

 Figure 5

Quarter2 (June): Approval of the study plan, including the regional public policy needs, by NTTG Steering Committee.

Stakeholder participation in NTTG’s Planning Committee meetings is always encouraged, especially during this public policy process.

### Posting Requirement

After the NTTG Steering Committee approves the public policy needs that will be used in the biennial plan, NTTG and its transmission providers will post on their OASIS sites a list of which public policy needs will be evaluated in the biennial transmission planning process and why other suggested public policy needs will not be evaluated.

### Public Policy Needs Evaluation in the Regional Plan

NTTG will use its regional planning process to determine if there is a more efficient and cost effective regional solution to meet the public policy needs submitted by the transmission providers in their local plans. The selection process and criteria for a regional public policy needs project solution(s) will be the same as that which is used for any other regional project that is selected into NTTG’s regional plan.

In its technical analysis, NTTG will insert the public policy needs in the transmission planning process to be evaluated with other regional projects rather than considering public policy needs separately from other transmission needs.

# Regional Transmission Plan Evaluation Process

The eight quarter biennial planning cycle evaluation process begins in quarter one by collecting appropriate load, resource and transmission data, including public policy need projects, non-transmission projects, other regional and interregional projects, from transmission providers, stakeholders, merchant project developers, committed regional and interregional projects .

The quarter one activities are followed in quarter two by development of the biennial study plan (or study plan). The study plan defines the specific study requirements and assumptions for the planning study.

In quarter three the study process begins by defining an initial regional transmission plan as the roll up of the transmission providers local transmission plans. This initial regional transmission plan should provide, from the transmission provider perspective, the reliable delivery of generation to loads that underlying the transmission planning process and should also include the transmission providers’ public policy needs transmission projects to meet their respective public policy needs.

Technical analysis of this initial regional transmission plan then proceeds in quarters three and four. The initial regional transmission plan’s load and resources will be adjusted pursuant to the study plan and will be tested against the Western Electricity Coordinating Council (“WECC”) transmission network defined by appropriate WECC base cases (production cost and power flow). The primary focus of this analysis is to determine betterments to the initial regional transmission plan through regional solutions that would yield a Regional Transmission Plan that is more efficient and cost effective than the initial regional transmission plan. The result of this analysis is the development of a draft regional transmission plan.

Stakeholder comments on the draft plan are received along with other input received during the quarter five data submittal period. From this information the draft plan may be modified. After the modifications, a detailed analysis of the modified draft regional transmission plan is conducted during quarters five and six. The result of this analysis is the development of a draft regional transmission plan report that will be available for stakeholder comment. NTTG’s Regional Transmission Plan report maybe a modification of the draft plan pursuant to stakeholder comments received during quarter seven.

Approval by the NTTG Steering Committee is in quarter eight.

A diagram of the regional planning process is shown in Figure 6.

Figure

# Study Plan

NTTG’s biennial study plan will be developed in consultation with stakeholders during the second quarter of the planning cycle. Stakeholders will be consulted during the regularly scheduled Planning Committee meetings and are encouraged to participate in these meetings. The study plan will be submitted to NTTG’s Steering Committee for approval at the end of quarter two (i.e, June).

In addition to providing a roadmap for development of NTTG’s Regional Transmission Plan, the study plan will delineate the method of study to evaluate the various transmission and non-transmission alternatives that have been received during quarter one. The study plan will be followed as closely as possible throughout the biennial planning cycle to produce NTTG Regional Transmission Plan. If, however, unforeseen events occur that require a change to the study plan, NTTG will coordinate these changes with stakeholders through the regularly scheduled Transmission Planning committee meetings.

The minimum information to be in the study plan will include the following.

## Goal of the Study

NTTG’s Planning Committee will biennially prepare a long-term (at least 10 year) Regional Transmission Plan. The plan will also provide strategic regional transmission and non-transmission options (economic and reliability projects) and, if appropriate, a specific plan for reinforcing the regional transmission system. If NTTG receives a transmission request for generation integration that is not part of the initial regional transmission plan rolled up from the Transmission Providers, the study plan may be adjusted to coordinate the evaluation of transmission congestion to delivery proposed customers.

The goal of NTTG’s planning study is determined to be an efficiently and cost effective Regional Transmission Plan that may be different than the roll up of the transmission providers local transmission plans.

The planning study will examine a limited number of scenarios of forecasted load and resource portfolios, to identify regional transmission and non transmission improvements and/or new solutions that meet the regional transmission needs. Additional scenarios for information about other public policy needs may also be included in the study plan.

## Regional Planning Process Deliverables

The deliverables from NTTG’s regional planning process is focused on meeting NTTG’s objective to develop a Regional Transmission Plan that meets the regional transmission needs more efficiently and cost effectively than a roll up of the transmission providers local transmission plans. The broad timing of the Regional Transmission Plan development process and the work products to be delivered are presented in the NTTG Planning Committee Charter and described above in “Biennial Planning Process” section and shown in Figure 2. The deliverables may be further defined, with consultation from stakeholder, during the quarter two development of NTTG’s study plan.

## Criteria for Selecting a Project into the Regional Transmission Plan

To start the NTTG biennial planning process NTTG will use the bottom up approach to develop its initial regional transmission plan (see ). This initial regional transmission plan will be the basis from which alternative transmission and non-transmission solutions (incorporating stakeholder projects submitted during quarters one and five) will be analyzed. The resulting Regional Transmission Plan will meet the needs of the NTTG footprint efficiently or cost effectively. NTTG applies the following definition to these terms.

### More Efficient or Cost-Effective

At a minimum a more efficient Regional Transmission Plan will accomplish some or all of the following.

* The plan meets the needs of the transmission providers or regional needs in a manner that is roughly commensurate as the initial transmission regional plan.
* The plan must be developable. That is, any new project selected in the Regional Transmission Plan must be able to meet the timeframe (e.g., year) when it is needed to maintain reliability and service needs.
* The reliability performance of the Regional Transmission Plan measured by appropriate engineering data/results (e.g, through N-0, N-1 voltage and thermal performance) is equal to or better than the initial regional transmission plan.
* The congestion of the Regional Transmission Plan, as measured through production cost simulation, will not be greater than the congestion of the initial regional transmission plan.
* The Regional Transmission Plan does not accelerate any future problem (e.g., voltage or thermal problem) into the planning horizon unless the total cost of the plan, including any mitigation cost to eliminate the problem, is no greater than the initial regional transmission plan and there is sufficient time to mitigate the accelerated problem.

### More Cost Effective

At a minimum a more cost effective regional plan will accomplish some or all the following.

* The Regional Transmission Plan total incremental capital cost is less than or equal to the initial regional transmission plan.
* The total production cost of the Regional Transmission Plan is less than or equal to the initial regional transmission plan.
* Or, the sum of the incremental capital cost and production cost of the Regional Transmission Plan will less than or equal to the initial regional transmission plan.

The study plan that is developed in the second quarter of the biennial planning cycle may modify the efficient and cost effective selection criteria describe above after consultation with stakeholders. Steering committee must approve the study plan.

## Reevaluation Due to Delay of Development when Selected in the Regional Plan for Cost Allocation

As shown in Figure 6 the NTTG’s initial regional transmission plan is a roll up of the transmission providers’ local transmission plans that meet the transmission providers’ reliability needs and service obligations. A transmission provider (or providers) solutions in their local plan maybe displaced during NTTG’s regional biennial planning process by a regional solution that is selected in NTTG Regional Transmission Plan for regional cost allocation. Should this displacement in the Regional Transmission Plan occur, the transmission provider(s) may choose to modify their local transmission plan(s) to include NTTG’s regional solution that is selected in the Regional Transmission Plan for regional cost allocation. Assuming this is the case, it is the responsibility of the transmission provider(s) to monitor the development of the regional project through progress reports that must be submitted to the transmission provider(s) by the regional project developer.

If the regional solution that is selected in the Regional Transmission Plan for regional cost allocation experiences a delay, the affected transmission providers have several choices if the delay may jeopardize the transmission provider’s reliability needs or service obligations. The choices include the following.

1. The transmission provider(s) may choose to have effects of the delay evaluated through NTTG’s regional biennial planning process by examining the impact to the transmission provider reliability needs or service obligations or by define an alternative regional solution. NTTG Planning cycle is a two year process which accommodates a feedback process in quarters one and five that will allow a reevaluation of those transmission projects selected in the Regional Transmission Plan for cost allocation if delayed. Cost allocation status for the delayed project would be suspended until the reevaluation is complete.
2. The transmission provider(s) may choose revise their local plan back to the original local plan project that was rolled up to build NTTG’s initial regional transmission plan. The cost allocation status for the delayed project will be suspended.

## Methodology

### Assumptions

The study plan will define the scenarios to be studied and the appropriate load and resources and transmission assumptions for the study.

### Time Frame

The study plan will biennially prepare a long-term (up to 10 year) bulk transmission expansion plan. To the extent that is practical, the planning process will use a recently TEPPC study base case that closely matches NTTG’s long-term planning horizon.

### Study Technique

The study plan will also describe the study techniques that will be used to analyze the regional transmission system, which may include some combination of power flow modeling and production cost modeling. For example, the NTTG biennial study may examine the reliability of NTTG and how the plan affects Western Interconnected system reliability using power flow techniques consistent with established planning methods that focus on anticipated times of system stress. The study plan may elect to find periods of stress or congestion that may arise from times of peak load or reduced resource availability, or simply from large geographical disparities in loads and resources using a chronological security-constrained generator commitment and dispatch model (e.g., production cost model) run across the 8,760 hours (8,784 hours for leap year) to find specific hours when energy flow from resources to loads is most constrained.

### System Conditions to Study

As described under “Study Technique” section, the study plan will identify the system conditions to be studied. Identification of the system conditions may go beyond the traditional focus of examining a snapshot of winter and summer peak conditions after examining all hours of the year using production cost modeling techniques to identify situations where available resources and forecasted loads across the Western Interconnection cause highest stress on the transmission system in the NTTG footprint.

### Bases Cases Selected

To the extent that is practical, the planning process will use a recently TEPPC study base case that closely matches NTTG’s long-term planning horizon. Use of the WECC base case provides a widely-accepted and well-vetted starting point. The study plan may also provide information how the WECC base cases will be modified by NTTG to represent the load and resource conditions and transmission topology necessary to conduct NTTG’s biennial planning studies.

### Contingencies to Run

The study plan will also provide a discussion of the contingencies to be run. In performing the studies, the ability of power flow programs to automatically test contingencies will be exercised, using contingency lists provided by NTTG member transmission providers. Lists will include significant single outages of transmission elements or generators, and any reasonably possible (credible) two-element outages.

### Reliability Criteria

The Regional Transmission Plan will meet applicable NERC and WECC system reliability standards and criteria.

# INTERREGIONAL PLANNING PROCESS

1. NTTG transmission providers’ Order 890 compliance filing used the term “sub-regional” to refer to NTTG and “regional” to refer to WECC. This document revises this terminology to conform to the FERC Order 1000 naming convention that NTTG represent the region and WECC represents interconnection-wide. [↑](#footnote-ref-1)
2. Compliance filing approved by FERC on April 8, 2010 [↑](#footnote-ref-2)
3. Order 1000 regional planning principles include coordination, openness, transparency, information exchange, comparability, dispute resolution and economic planning. [↑](#footnote-ref-3)
4. Deseret Power, Idaho Power, NorthWestern Energy, PacifiCorp, Portland General Electric and Utah Associated Municipal Power Systems [↑](#footnote-ref-4)
5. For a sub-regional economic study request to be considered by NTTG, eligible customers or stakeholders must submit the request to a transmission provider that is a party to the NTTG Funding Agreement. [↑](#footnote-ref-5)